



**United Nations Environment Programme  
Programme des Nations Unies pour l'environnement  
Water Branch**

**GLOBAL CORAL REEF MONITORING NETWORK (GCRMN) WORKSHOP  
Mombasa, Kenya, 28 February 1997**

**INTRODUCTION TO THE WORKSHOP**

1. The Workshop Chair, Dr. Ian Dight, Coordinator, Aquatic Biodiversity, UNEP, opened the meeting by welcoming participants to the workshop. He went on to outline its objectives, which included:

a) to identify national activities and programmes relevant to the GCRMN;

b) to design sub-regional monitoring networks in collaboration with national organizations and institutions.

2. Dr. Dight went on to explain that the basis for UNEP support and involvement in the GCRMN is the evident need for data and information to support effective management and conservation of coral reefs. UNEP has a mandate through its Governing Council resolutions on the International Coral Reef Initiative (1995 and 1997) to facilitate the implementation of the GCRMN. He noted that the legislative mandate for governments lies in the Convention on Biological Diversity, which obliges signatories to monitor ecosystems of high and/or threatened biodiversity. Without doubt, this includes coral reefs, and all countries present at the workshop have ratified or acceded to this convention.

3. Dr. Dight also noted that the implementation of the GCRMN has been discussed previously at the International Coral Reef Initiative (ICRI) Western Indian Ocean and Eastern Africa Regional Workshop (Mahe, Seychelles, 29 March-2 April 1996). This meeting recommended that two sub-regional networks should be established for the region: one for the mainland African states and one for the Western Indian Ocean island states. Kenya Marine and Fisheries Research Institute (KMFRI) has since formally offered to host the sub-regional node for the mainland African states, while the Indian Ocean Commission (IOC) has been proposed as a sub-regional node for the Western Indian Ocean island states.

**INTRODUCTION TO THE GCRMN AIMS AND PRINCIPLES**

4. The Workshop Secretary, Mr. Jason Rubens, representing IOC-UNESCO, made a presentation of the underlying principles and aims of the GCRMN. The presentation constituted of a summary of the GCRMN Strategic Plan which was in the latter stages of finalization and will shortly be published and

widely circulated. This included the following points.

5. Identification of the Western Indian Ocean and Eastern African region as one of six operational regions for the GCRMN worldwide and clarification of the coordinating structure of the GCRMN. Mr. Rubens noted that the GCRMN is co-sponsored by IOC, UNEP and IUCN, and that the co-sponsors, together with the ICRI Secretariat (Australia) and GCRMN co-hosts, ICLARM and AIMS, form the Management Group. A Scientific and Technical Advisory Committee (STAC) has also been set up to provide advice to the Management Group.

6. Mr. Rubens pointed out that the GCRMN is not itself a donor. To date its activities have attracted support from the US State Department and the UK Overseas Development Administration (ODA). The emphasis of the GCRMN will not, therefore, be on establishing substantial new field programmes or providing extensive new data management facilities, but rather to promote centralized management of coral reef-related data and information from existing programmes and facilities. Having said this, the GCRMN does aim to catalyze further support from regional and international donors (mainly to relevant national institutions) in pursuit of its objectives.

7. The goal of the GCRMN was summarized as the establishment of regional networks of coral reef assessment and monitoring activity in order to provide individuals, organizations and governments with the capacity to assess the resources of coral reefs, and data and information on the trends in biophysical status and social, cultural and economic values of these ecosystems, with the ultimate aim of promoting and improving the conservation, management and sustainable use of coral reef resources worldwide.

8. Clarification of who will be involved in monitoring activities under the GCRMN was also provided by Mr. Rubens. As stated, the GCRMN will aim mainly to network existing, available capacity for the collection of data and information relevant to coral reefs. Data collection activities fall into three broad categories:

- (i) low resolution (e.g. rapid assessment methodologies, fishing communities, tourist divers)
- (ii) moderate resolution (e.g. National marine research & management institutions, universities & NGO projects)
- (iii) high resolution (specialist marine biologists & coastal socio-economists)

9. The guiding principle for determining what parameters should be monitored under the GCRMN will be a commitment to generate information which has practical relevance and utility to coral reef management authorities.

10. In practice this will give equal weight to bio-physical factors (e.g. benthic cover, invertebrate density, and fish abundance and diversity) and social, cultural and economic factors (e.g. identification of stakeholders, and existing uses and values, fisheries yields, tourism activity, economic value of reefs, systems of tenure and other relevant cultural lore, attitudes and practices).

11. Mr. Rubens summarized the GCRMN objectives and principles, including the following:

- to collate information relevant to economic and environmental policy development.
- to emphasize involvement of local communities in monitoring and management of coral reefs.
- to give equal emphasis to socio-economic and bio-physical parameters.

- to avoid creating new bodies and projects, but to focus instead on networking existing capacity and distilling relevant information from ongoing programmes.
- to maintain flexibility with regard to methodology and data formats.

## **PRESENTATIONS BY COUNTRY REPRESENTATIVES**

12. The country representatives were invited to give a brief overview of the status of coral reef monitoring activities in their countries, with special reference to the establishment of the network.

13. Representatives from Eritrea, Kenya, Tanzania, Mozambique, South Africa, Mauritius, Reunion, Mauritius, Maldives, Sri Lanka and India gave presentations. Each included:

- i) an overview of institutions, other organizations and individuals undertaking coral reef monitoring and assessment activities in each country;
- ii) the objectives of ongoing monitoring and assessment activities;
- iii) identification of donors supporting monitoring and assessment activities;
- iv) the existing capacity for field-based monitoring activities;
- v) the existing capacity for data management and coordination;
- vi) identification of the most appropriate institute or organization to function as a coordination/focal point at the national level; and
- vii) priority needs or obstacles standing in the way of establishing a coordinated national assessment and monitoring programme.

14. All representatives declared their interest in participating in the GCRMN. Although Eritrea is not biogeographically a part of the Eastern African region, the representative noted an interest in linking with the GCRMN sub-regional node for the African mainland.

## **SUMMARIZED DISCUSSION POINTS**

### **15. Sustainability of GCRMN**

Concern was expressed that national governments may feel that they have too many other priorities to be concerned with the GCRMN. However, it was pointed out that the GCRMN is intended to provide critical information to national decision-makers and also to provide regional/global overview to elicit support from international donors for coral reef management initiatives. Therefore GCRMN should justify some level of national government support as long as it genuinely provides these services.

Furthermore, it was noted that a principle of the GCRMN is to link existing institutions and programmes rather than to establish a lot of new ones. Therefore, the support required from national government should be relatively modest.

Another justification that was raised during the workshop for government support for the GCRMN and the collation of data and national and regional levels was to provide a forum where lessons from projects at a local level can be distilled by national authorities and institutions, and then applied to subsequent initiatives at other localities.

#### 16. Socio-economic assessment and monitoring

There was strong support and recognition of the need to incorporate socio-economic data and information into assessment and monitoring programmes. Concern was expressed that institutional structures for socio-economic expertise and activity may be less well-developed than for bio-physical work which has a longer tradition. Representatives of IMS (Tanzania) and KMFRI (Kenya) confirmed that both institutes are involved in socio-economic work and have some capacity for such activities.

The need for scientific rigour or accuracy of socio-economic rapid assessments was emphasized. The UNEP representative informed the workshop of a commitment by UNEP and IUCN to develop a standardized socio-economic methodology based on that developed on the IUCN Tanga Coastal Zone Management Project in Tanzania. A standardized methodology would be useful both for other parts of the region, and for other regions, especially where little socio-economic data collation has previously been undertaken. Plans are in place to evaluate the methodology in Mozambique later in 1997.

#### 17. Standardization of data formats and methods

Concern was raised about GCRMN imposing standardized formats for data collection and field methods. In response, there was clarification that the field methods, and the format of the raw data are not necessarily relevant in this context, since raw data will not go into national and regional databases. Only summarized results and statistics will be requested by the national and regional nodes.

It was generally agreed that if a basic aim of the GCRMN is to network existing and planned projects, the GCRMN could not realistically afford to be prescriptive in terms of type of data collected by local projects. Local projects should continue to develop assessment and monitoring agendas according to local priorities and information requirements, though the GCRMN may have some influence where it does not entail any departure from those priorities. The link to the GCRMN will be effected through national database personnel who will liaise with local projects over suitable formats for submission of summarized data. Such data will essentially constitute the area of overlap between the agenda of the local project and GCRMN data fields that have been pre-determined by regional/national GCRMN database coordinators. The information needed for management will be a priority in determining these data fields.

#### 18. Database compatibility

The meeting agreed that database compatibility between local projects/national databases and national/regional databases is, in principle, desirable. The UNEP EAF/14 Eastern African Coastal and Marine Environment Database & Atlas Project will contribute to GIS databases in all countries of the region, and this project was acknowledged as potentially able to provide a good basis for a national and regional database network for the GCRMN. There was an identified need to extend and, where necessary, modify the existing data fields to meet the needs for coral reef management and the GCRMN.

It was also noted, however, that full database compatibility, particularly between local project databases and national databases, may not be practicable in every instance. It was stressed that the GCRMN did not intend to provide a common database facility (and training) throughout a given region, let alone throughout the world. In the Western Indian Ocean/Eastern African region, for example, several institutions and projects have already established database systems and, as emphasized elsewhere, the aim of the GCRMN is to make use of this existing capacity and activities. Any existing incompatibilities should not be seen as an obstacle to the network for the reasons given in paragraph 17 above.

#### 19. Development of national nodes in the Eastern African Region

The most suitable institution for a national node was provisionally identified for each country represented at the workshop. The next step towards developing the GCRMN in the Western Indian Ocean/Eastern African region will be to obtain formal commitments from these institutions and from other appropriate national authorities for the institutions in question to operate formally as GCRMN national nodes. The institutions that have been identified will then need to identify key personnel to act as national database coordinators. These individuals will be responsible for establishing programmes at the national level. Dr. Dight confirmed that UNEP would maintain its commitment to facilitate GCRMN development in the Western Indian Ocean/Eastern African region, working closely with the two sub-regional nodes.